

Remarks:

In the Office Action mailed on February 9, 2007, the Examiner rejected claims 1-35 and 37-48. Claims 16-26, 39-42 and 45-48 are objected to. Claims 1 and 45-48 are amended herein and Claims 8-9 have been cancelled. Claims 1-7 and 10-48 are now pending in the application.

Claim Objections

Claims 16-26, 39-42 and 45-48 are objected to as being dependant from a rejected claim base but will be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

35 USC 101

Claims 1-35 and 37-38 are rejected under 35 USC 101 because independent claim 1 and claim 31 produce no end result. Applicants traverse the rejection.

The Examiner stated that “[these] claims are rejected under 101 as being non-tangible. Applicants submit that this is an incomplete analysis under 35 USC 101.

35 USC 101 sets forth four statutory categories for patentable subject matter; namely, process, machine, manufacture, or composition of matter. 35 USC 101. There can be no question that “An integrated circuit card” (claim 1) fits within the machine category and that “A method of processing voice waves with an integrated circuit card” is a process within the meaning of Section 101.

However, the Supreme Court has identified judicial exceptions to the statutory categories. These judicial exceptions are “laws of nature, natural phenomena, and abstract ideas”. *State St. Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368, 1373, *citing*, *Diamond v. Diehr*, 450 U.S. 175, 185

(1981). Applicants submit that the claims do not fall within any of these judicially created exceptions to Section 101. Examples of these exceptions cited in the Interim guidelines include “a new mineral discovered in the earth or a new plant found in the wild”, “Einstein could not patent his celebrated law that $E=mc^2$; nor could Newton have patented the law of gravity”, “a novel and useful mathematical formula”, “electromagnetism or steam power”, “the qualities of bacteria, the heat of the sun, electricity, or the qualities of metals.” Interim Guidelines, Section IV.C (cites omitted).

Claim 1 recites two elements; namely (1) an integrated circuit, and (2) a voice processing circuit. The integrated circuit has “a biometric voice sensor ... configured to detect the speech of a user.” There can be no doubt that that element does not fit within any of the three exceptions.

The second element of Claim 1 is for a voice processing circuit that is also integrated into the integrated circuit. This circuit receives a signal responsive to the speech of a user from the biometric voice sensor and processes that signal to extract voice characteristics representative of the user. Again, this is neither a law of nature, a natural phenomena or an abstract idea.

Claim 31 recites analogous limitations.

The Examiner has not explained which of the judicially created exceptions to Section 101 that she alleges the claims to fall within but rather made the statement that “[t]hese claims are rejected under 101 as being non-tangible.” However, this is not the correct application of the tangibility test.

As stated in the Interim Guidelines, a practical application of a Sec. 101 exception can be identified by the claimed invention produces a useful, concrete and tangible result. Interim Guidelines, Section IV.C.2. The analysis of whether the claim is for a practical application of a Sec. 101 exception is reached when it is determined that a claim falls within one of the Sec. 101 exceptions. As stated in the Interim Guidelines, “An examiner must

ascertain the scope of the claim to determine whether it covers either a Sec. 101 judicial exception or a practical application of a Sec. 101 judicial exception. The conclusion that a particular claim includes a Sec. 101 judicial exception does not end the inquiry because ‘[i]t is now commonplace that an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.’” Interim Guidelines, Section IV.C.1., cite omitted.

Thus, it is not until after a claim has been determined cover a Sec. 101 judicial exception that the analysis of whether a practical application thereof is involved, and consequently, whether a claim recites something that is tangible is an analysis that is not reached until the claim is identified as falling within one of the judicially created exceptions. Here, the claims do not fit within the judicially created exceptions to Section 101. Thus, the analysis of whether a tangible result is achieved is not one that needs to be addressed.

That said, with regard to claim 1, applicants respectfully disagree that the claim does not produce a tangible result. Claim 1 is a device that clearly claims technical features. A voice processing circuit configured for receiving voice signals from a voice sensor and for extracting characteristics from the signal is a tangible feature that corresponds to a microcontroller connected and programmed for performing the indicated function. Similarly, with regard to claim 31, claim 31 is a method that clearly claims steps for “generating”, “analyzing” and “comparing” all performed by the integrated circuit card.

For the foregoing reasons, Claims 1 and 31 recite patentable subject matter and should be allowed.

35 USC 102

Claims 1-2, 10, 12-13, 31, 35, 37 and 43 are rejected as being anticipated by Nitta (US 4851654) Applicants traverse the rejection.

Anticipation under 35 U.S.C. 102(b) requires that each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. MPEP 2131, citing, Verdegaal Bros. v Union Oil Co. of California, 2 USPQ2d 1051,1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ... claim.” MPEP 2131, citing, Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)

Claim 1 recites “an integrated circuit having a biometric voice sensor integrated into a portion of the integrated circuit.” Nitta clearly does not teach or suggest such an element but rather teaches away therefrom.

Nitta discloses, “Referring now to FIGS. 3A and 3B of the drawings, there are shown a section and a top view, respectively, for microphone 9 and speaker 11. In this embodiment, microphone 9 and speaker 11 are planar and are of the same electroacoustic transducer construction.

The conceptual structure of an electroacoustic transducer is as follows. A plane electrode 43 is laminated on a card base 41. A piezoelectric ceramic sheet 45 is also laminated on plane electrode 43. A pair of plane electrodes 47a, 47b are laminated on piezoelectric ceramic sheet 45.” Nitta, Col. 3, lines 50-60). Thus, the microphone of Nitta, being laminated to the card base, is definitely not “integrated into a portion of the integrated circuit” (Claim 1).

It should be noted that in the “Response to Applicant”, the Examiner has observed that in Kennedy (U.S.Pat.No. 6,084,967) an IC card is inserted in a phone and the user does not speak into the IC. Rather the user speaks into the phone. Nitta is not all that different from that except in Nitta the microphone has moved from the phone onto the card. However, the next step, claimed by the inventors, of moving the microphone onto the IC has not been disclosed or suggested by Nitta.

Furthermore, Regarding rejection of claim 1 under 102 in view of Nitta, claim 1 has been amended to state “the voice processing circuit integrated into a portion of the integrated circuit, wherein the voice processing circuit is configured to receive the signal from the biometric voice sensor and to process the signal to extract the voice characteristics representative of the user” (Claim 1, Lines 5-8). Such a process extracts specific characteristics that are representative of the user and not necessarily representative of the message said by the user.

Nitta discloses, col.6, lines 8-15, that Nitta’s integrated circuit card stores pattern recognition and that the central processing unit (CPU) might recognize speech and output commands corresponding to speech. Nitta only discloses a card performing speech recognition, which is different than voice authentication. Speech recognition does not need to extract voice characteristics representative of the user. It is in this distinction that the applicants feel the invention is new.

In addition, all of Nitta’s disclosure is directed to vocal commands, not voice authentication. Vocal commands and voice authentication represent completely different problems and a man skilled in the art has no reason to search something in Nitta’s document for increasing the reliability of voice authentication of the card user by the card.

With regards to the other references cited by the Examiner in support of the 35 USC 103 rejections (Takahashi (4,961,229), Kennedy (U.S. Pat. No. 6,084,967), Maes (U.S. Pat. No. 6,411,933)), none of those references teach or suggest a card with “an integrated circuit having a biometric voice sensor integrated into a portion of the integrated circuit” or incorporating voice processing means for extracting characteristics representative of the user’s voice. Consequently, even if these documents are combined a man of the art cannot find such a feature. Accordingly, Claim 1 is neither anticipated by

this reference and is not obvious over the references taken singly or in combination.

Claim 31 recites analogous elements to those set forth in Claim 1. Accordingly, Claim 31 is patentable for the same reasons given in support of Claim 1.

The dependent claims depend from Claims 1 and 31, respectively, provide further unique and non-obvious combinations, and are patentable over the cited prior art for the reasons given in support of Claims 1 and 31 and by virtue of such further combinations.

CONCLUSION

It is submitted that all of the claims now in the application are allowable. Applicants respectfully request consideration of the application and claims and its early allowance. If the Examiner believes that the prosecution of the application would be facilitated by a telephonic interview, Applicants invite the Examiner to contact the undersigned at the number given below.

Applicants respectfully request that a timely Notice of Allowance be issued in this application.

Respectfully submitted,

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